

DOCUMENT RESUME

ED 171 220

HE 011 304

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 TITLE On Guiding (Not Leading) Discussions: A Practical Guide for IDEA Users.
 INSTITUTION Kansas State Univ., Manhattan. Center for Faculty Evaluation and Development in Higher Education.
 PUB DATE Aug 78
 NOTE 23p.
 AVAILABLE FROM Center for Faculty Evaluation and Development in Higher Education, 1627 Anderson Ave., Box 3000, Manhattan, Kansas 66502
 EDRS PRICE MF01/PC01 Plus Postage.
 DESCRIPTORS *College Faculty; College Instruction; *Communication Skills; *Discussion (Teaching Technique); *Effective Teaching; Higher Education; Resource Guides; *Teacher Role; *Teaching Skills; Teaching Techniques

ABSTRACT

The role of the teacher in a classroom discussion is addressed in this guide. The underlying construct is that of teacher-learner dialogue: a symbiotic interaction in which each person plays a complementary role. The following ideas are regarded as myths about discussions: (1) by definition, discussions are always nurturant; (2) students are always ready and willing to discuss; (3) discussions take no preparation time; (4) small classes guarantee a nurturant and friendly atmosphere; and (5) discussion leaders in universities can be one of the group. Suggestions are offered for teacher preparation of content, student information, setting, and grading standards. Students need to prepare before a discussion, and suggestions for student homework necessities are offered. Specific interactions including listening, responding, questioning, and silences are discussed. The guide focuses on the benefits to learners made possible by their teacher's skills. A bibliography is included. (SW)

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ON GUIDING (NOT LEADING) DISCUSSIONS
A Practical Guide for IDEA Users

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Center for Faculty Evaluation and Development
in Higher Education
1627 Anderson Avenue, Box 3000
Manhattan, Kansas 66502

August 1978

HE 011304

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Introduction to Practical Guides

A major flaw with most student evaluations of teaching, or any evaluation of teaching, is that having pointed out where there might be room for improvement, they have little to offer about possible means of improvement. These Practical Guides are an attempt to remedy that situation for IDEA users. Typically, the IDEA Report identifies specific teaching methods needing improvement which are related to the instructor's course objectives where the students reported average progress or less. These Practical Guides will make concrete suggestions about ways to improve teaching. Although the suggestions presented in these Guides are written in the context of the IDEA System, most of the suggestions are taken from the general literature on college teaching and so should be of help to any college teacher seeking to improve upon a given teaching technique.

The first set of Practical Guides published by the Center were written by the professional staff of the Center; Drs. Stephen Brock, William Cashin and Richard Owens. While individuals from Kansas State University may author subsequent Guides, the Center has invited professionals in instructional improvement from other colleges and universities to contribute manuscripts.

The Center Staff is pleased to publish On Guiding (Not Leading) Discussions by Dr. Philip C. McKnight.

Dr. McKnight is currently Director of the Office of Instructional Resources, University of Kansas and teaches in the Department of Curriculum and Instruction. His Ph.D. study at Stanford University concentrated on technical skills in teaching (lecture, discussion, questioning). With Robert Bush, he authored an annotated bibliography on the research on micro-teaching from 1970-75, commissioned by ERIC. He has conducted several training symposia at annual meetings of the American Educational Research Association and the American Psychological Association.

Stephen C. Brock
William E. Cashin

Fall 1978

ON GUIDING (NOT LEADING) DISCUSSIONS

A Practical Guide for IDEA Users

Research on teaching methods at the college level has supported the hypothesis that classes which feature discussion are often preferred to traditional lecture techniques (Eash and Bennet, 1964). Although facts and information can be imparted with greater efficiency in a lecture, evidence shows that discussions may be better for teaching more complex cognitive and attitudinal objectives (Erskine and Tomkin, 1964; Douglas, 1970). Teachers are exhorted to plan their classes accordingly.

This advice, cogent as it is, poses a problem to many college teachers. Having learned under the lecture system, and because they are at ease in such a structured setting, they are predisposed to use it. Furthermore, the guidelines for effective lecturing are fairly straightforward and can be acquired by most with practice. The lecturer who is articulate, enthusiastic, well-organized and who uses attention-getting devices, illustrative examples, periodical summaries and a variety of media, and who is free from distracting mannerisms, will probably succeed in the lecture hall.

Unfortunately, the guidelines for establishing the appropriate discussion setting are not as easily applied. Although college teachers are exhorted to be sensitive facilitators and mediators, most have received little training which will allow them to implement these recommendations effectively. For example, what happens when the teacher, committed to using this method, finds himself before a group of students who expect the normal 50 minutes of lecture information? Some instructors begin with ten minutes of well-chosen remarks, then abruptly stop with a ploy designed to encourage class participation -- the asking of a "provocative" question. However, all too often the question is either extremely narrow or completely open-ended. A sample of the former is: "What is the correct solution to this problem?" and the latter: "What are your ideas on the subject?" An awkward and embarrassing pause often follows while the instructor waits for some reaction from the students. What might be the reasons for such pauses? For one, students may be uncertain about the teacher's purpose in asking such questions; the students may wonder, "Is this a learning experience, or is it merely a test?" Or, "Does the teacher already have a preplanned answer? Why gamble on an isolated solution when it is much safer to remain silent?" A frequent thought is, "If I attempt to answer that question, the other students will think I am apple-polishing. If I am incorrect, they will laugh at me." Or perhaps the class has seen what may happen to those who volunteer information which may not support some teachers' answers or beliefs. College students have twelve to eighteen years of experience in this setting. Teachers' cynicism, ridicule, sarcasm and belittlement of wrong answers may have taught students one clear lesson -- avoid responding at all.

These problems should indicate the importance of a teacher clarifying the purpose of his provocative question, and of his willingness to accept student contributions in a positive manner. Without such steps, the only effects of the question may be that when an answer is given, (1) the brightest or best-prepared students are discovered, (2) the instructor's ego is gratified by hearing an agreeable response, and (3) the void is filled by someone other than the instructor, giving him or her a moment of respite.

Thus, the purpose of this guide is to acquaint the reader with various aspects of the role of the teacher in a classroom discussion. The label, "classroom discussions", encompasses a range of activities, from small seminars to large class presentations. The underlying construct is that of teacher-learner dialogue; a symbiotic interaction in which each person plays a complementary role. Through discussion activities, students (and their instructors) have the opportunity to clarify, explore, elaborate upon, etc. These actions apply to both knowledge and attitude: the cognitive benefits of acquisition and long-term recall from rehearsal are complemented by important social goals as well, because discussions also provide the opportunity to reinforce one's feelings of acceptance and belonging. It is important to note that size is not a determining characteristic of discussion activities because, while it is true that the majority of discussions are held in small groups, it is also true that useful discussions may be held with very large groups. Put another way, small groups do not guarantee successful discussions nor do large groups insure failure. This fact may be illustrated in several points about what I believe to be myths about discussions.

I. MYTHS ABOUT DISCUSSIONS

A. Myth 1: By definition, discussions are always nurturant.

There is a belief in American education that small is beautiful and that large must be less than desirable. A review of many small college brochures will verify this fact. Promises are made that, because of the small number of students admitted, classes are small and therefore more effective and personally rewarding; that there is a pervasive sense of personal commitment throughout the campus which extends into each and every classroom and into each relationship between faculty and students. On the other hand, the large university is portrayed (at least by implication) as suffering from the indifference caused by the anonymity of large numbers of faculty and students. Lost in such a large congregation, students are seen to have no chance of finding a personal relationship in or out of the classroom with faculty members or even with their fellow students. In many cases, these claims are valid. However, it is incorrect to assume at the outset that every small class on every small campus will necessarily be nurturant or that every large class on every large university will be distant, impersonal, etc. It is simply not valid to make blanket assumptions about every classroom and every teacher in those classrooms. For a class to be nurturant, the teacher must be nurturant. Independent of the size of the class or the university, the professor is the most important factor in determining whether classroom interaction is positive,

caring, personal, etc. Often small discussion classes are only small lectures. Bellack (1966) found when comparing classes identified as either lecture or discussion, that the ratio of teacher participation to student was almost the same. The teacher, in such classes, might as well have been in front of a class of 500 as 15 because there was little interaction with the students.

A better way of judging the value of classrooms may be to ask the question: What is the purpose of this class? If it is designed to impart a great deal of information that otherwise might be unavailable to students, or which might be difficult for them to gather and synthesize, then a lecture could in fact be the most educational kind of instruction possible. It would be of great benefit to students because it would save them a great amount of frustration and/or unnecessary effort. This will be discussed again later.

B. Myth 2: Students are always ready and willing to discuss.

This is not always so for several reasons.

(1) If teachers are not careful with their grading criteria, students may be hesitant to enter into discussion. This can happen in part because of peer pressure not to be too talkative under grading standards which reward participation. Thus, if a student participates "too much", his peers may show displeasure with his or her apparent plan to "talk their way to a grade." This is unfortunate because the goal of discussion groups and activities is to encourage students to participate and thereby strengthen their understanding.

The awarding of grades based on participation can also be inhibiting if students fear that an incorrect contribution will lower their grades. If a student feels that each of his contributions will be precisely evaluated, then he may be overly anxious about being correct. Thus, students might confine their contributions to "safe" answers. In sum, it may be better to avoid applying grading criteria to specific contributions.

(2) There is resistance in our society to public displays of knowledge and/or enthusiasm and students are often interested in showing how sophisticated they are about the world. Such sophistication does not allow for the enthusiastic display of interest and understanding. Thus, students in many classes will refrain from participating to any great degree. They really do not want their peers to feel that they are too interested in the subject, the class, and education. Societal mores in our country about modesty also may dampen student displays of understanding and enthusiasm. Unfortunately, advanced learning often requires more involvement than is socially acceptable.

(3) It is often difficult for students to be ready to talk at a minute's notice. This is particularly true after a teacher has asked an important question which requires sophisticated reasoning before an answer can be given. A problem often arises because, in our society, silence is sometimes dreaded, particularly by the teacher. Thus, teachers must learn

to tolerate and even appreciate the advantages of silence in the classroom, particularly after they have asked sophisticated and challenging questions. If they do not, then students may learn to respond with answers that fill the silence -- but which do little to further the students' learning.

A related problem is that of student readiness to discuss on any given day or hour. Although classes are scheduled in advance and according to a set timetable, human abilities to discuss competently do not always coincide with these timetables. On any given day, a person may simply not be intellectually or emotionally ready to enter a discussion. By the same token, teachers are often not in the intellectual or personal mood necessary to guide a profitable discussion.

C. Myth 3: Discussions take no preparation time.

There seems to be an unfortunate misunderstanding about the amount of preparation that discussions require. Too many instructors assume that you can "just walk in" to the classroom and begin useful discussion. It is as if they feel that, with a basic understanding of the subject, they can rely upon the Socratic method and instantly lead a sophisticated discussion with their students for 40 to 50 minutes. However, a good discussion takes a great deal of prior planning and review of the subject matter. To begin with, the content itself must be reviewed and brought up to date; that is why keeping up in one's field is so very important. Inevitably in a discussion, a question about present applicability or trends, etc., will be raised, and at that point the instructor can be of great help if he or she is able to relate what is being discussed to the most recent events or developments in the field. It is also important that the teacher be knowledgeable about the backgrounds and interests of his or her students. This is why student information and background sheets and get-acquainted sessions at the beginning of the term are useful. For example, if the instructor knows that the father of one of his students works as an accountant in a local industry, he may be able to make his lesson on accounting procedures more meaningful by drawing upon the student's knowledge of his father's activities. Prior planning also enables a teacher to anticipate the kinds of questions that will emerge during the discussion. In this way, he can provide more appropriate and helpful sorts of answers to those questions. He can also consider how the questions might be referred to other students, thereby helping them to reinforce their understanding.

D. Myth 4: Small classes guarantee a nurturant and friendly atmosphere.

As already mentioned, in our society we often assume that small groups of people will be able to get to know one another quickly and will therefore be willing to share experiences, concerns, etc. However, such close knitted friendship groups do not often emerge. It is unrealistic to expect that in a pedagogical situation all of the participants will automatically become friends. Because of this, teachers need to be aware of their roles as both social and task leaders. This is usually a very demanding

assignment because most work groups have different people to (1) guide the group to the completion of its task, and (2) to keep it together socially along the way. Unfortunately, the role of teacher in our society combines both of these, at least at the outset. Thus, the teacher needs to anticipate ways in which he or she can either delegate (formally or informally) the role of social leader, and ways in which a positive and caring personal environment can be created. One of the best ways of doing this is to spend a few minutes or even most of the first session getting acquainted with students, and having them get acquainted with the teacher through a discussion of the students' major field of study, academic background, work experience, career plans, etc. The outcome of such shared knowledge is normally an increase in the interaction between students which then leads to a better social climate in the classroom. With such enhanced feelings, the teacher will find it easier to focus on the task. Teachers may also incorporate such information in lesson plans, using it to bring students' experiences and plans into discussions. For example, with knowledge of his students' summer activities, a teacher might be heard to say, "I see that several of us have worked in fast food franchises recently. Do you have any insights about the effects of a repetitious work pattern on the employee?"

E. Myth 5: Discussion leaders in universities can be one of the group.

Having just said that it is important to create a positive social climate in a group, regardless of size, I must also talk about the expectations which students have about the degree to which discussion leaders (e.g., teachers) can become "one of them". Students do not appreciate teachers who try to ignore the fact that they are responsible for evaluation. A leader must give up certain privileges which members of the group have. One of these is the ability to be as informal as he or she might wish to be. It may seem paradoxical, but one of the best ways for the leader to establish informality is to set goals and criteria clearly at the beginning of the class. If goals and evaluation criteria are set, they become in a sense removed from the influence of personal interactions. Teacher and students can then work together toward the goals set by the teacher in hopes that all the students will be able to reach them. The teacher does not become a colleague, but a mentor who is honestly trying to help them achieve the goals agreed upon by all.

II. SUGGESTIONS ABOUT GUIDING DISCUSSIONS

What, then, are the attributes of a good discussion? The comments which follow may help formulate a composite picture of useful discussion behavior on the part of both teachers and students. Initially, attention will be given to aspects which are important to every type of discussion. Then, several attributes of specific discussion skills, identified here by various IDEA items, will be reviewed.

There are five important areas which a teacher should consider before engaging in classroom discussion activities. They deal with teacher and student attitudes and preparation, and discussion attitudes in the following ways:

A. Teacher Preparation: Content, Student Information, Setting

1. Keep up to date. To begin with, teachers might memorize the words, "Read or perish." Such advice is certainly subsumed in "Publish or perish", but while many teachers do not carry on extensive research activities, they must not neglect the fact that it is imperative that they keep up with their field. There is simply no way of continuing to learn without becoming intensively involved with subject matter. At the minimum, that means reading. It is important to read both new materials and to review past lecture notes with a view toward recalling those questions and topics which may have been the most useful in eliciting student participation.
2. Learn about students' backgrounds and interests. It is very important to get to know the students' interests and backgrounds in initial sessions. The time devoted to this is not wasted. It is a way of obtaining information about students that can later be used in discussions, it increases the likelihood of students interacting with one another later (out of class as well as in), and it helps to create an atmosphere of congeniality and trust. In general, students should begin to feel comfortable in the discussion group.
3. Start where students are "at." A discussion can begin with a topic which students are familiar with and can therefore feel knowledgeable about. Such a topic could be one that is given in a group of study questions prior to the class, or a general topic based on information which most students will have. Related to such prior questions is a matter of a hierarchy of questions. The value of beginning with relatively simple questions and leading into higher order levels of questioning should be obvious. However, it does not seem to be obvious enough. Time and again, discussions fail because teachers forget to attend carefully to not only the needs of the class but its level of expertise. It is simply inappropriate to ask graduate level questions of a large undergraduate class if they have essentially no basis for understanding the constructs. Such questions only inhibit discussions and make it far less likely that students will be willing to participate in the future. There is evidence from a variety of studies dealing with learning that there are levels of learning and taxonomies of concepts. The work of Piaget (1958), Brunner (1956) and Bloom (1956) all point to the hierarchical organization of knowledge. It makes sense, therefore, that teachers would plan their questions carefully in order to successfully lead their students in a kind of Socratic progression from initial, surface levels of understanding to the kinds of evaluation, synthesis, etc., where students are able to transfer constructs to new situations, to utilize constructions in innovative ways.
4. Prepare the students. This involves acquainting the students not only with what will be covered during the discussion session, but why it is important. As a result of establishing such a frame of reference, student involvement should be increased. Study guides and questions, preview, etc., are all useful in this way, and are sometimes called "advance organizers." Students will be more inclined to participate when they see what the discussion is all about. In addition, the advance organizers should be used to point out relationships to students' intrinsic

and extrinsic interests, thereby enabling them to see a relation between present performance and future rewards. Discussion involves elaboration, and rather intensive participation, and topics which have little or no interest to us usually do not qualify for that description. In sum, it should be very clear in the teacher's mind what he is about in a classroom discussion. In this way he knows what he is going to focus upon so that if the class "gets off the subject," the teacher can fit such digressions into the discussion rather than letting them detract from it.

5. Arrange an appropriate physical setting, where possible. Attention should be given to the physical setting for the discussion. People find it difficult to speak to someone whom they cannot see. If the seats in a classroom face the teacher, students will talk to, or at, the teacher rather than to other students. However, if students can look at one another, they will be more apt to interact with each other as opposed to the teacher only. This is a difficult problem because most of our classrooms have seating which faces the front. If the class is small enough and the chairs are not fixed, it may be possible to rearrange seating in a circle so that no one is at the focal point. Remember, though, that people are more likely to address the person across from them than those next to them. When a discussion is held in a large room, the teacher may move around the room to increase interaction. He or she may also find that sitting, rather than standing, helps students to begin to refer to one another.

6. Consider group size. These remarks apply to discussion activities in both large and small classes because discussions should not be confined to the traditional small group. Good discussions can occur in classes of all sizes. There are obviously differences in what is possible, depending on the number of students, the nature of the task, and the skills of the students. I prefer these considerations rather than any rule of thumb, such as seven plus or minus two. Such assumptions may not always hold so there is no reason for a teacher to feel that his or her class of thirty cannot hold useful discussions. Some believe that in groups of more than five students, participation by individual members falls off sharply. However, I believe that a skillful teacher can involve students, if not always overtly, then sympathetically. Each student need not actively participate in every session for him or her to be able to feel involved.

B. Teacher Preparation: Grading Standards

Grading standards are a very important part of encouraging participation. I believe that they should not establish an overly competitive atmosphere in the class. Evidence of the dysfunctional effects of a competitive atmosphere is provided by Haines and McKeachie (1967). In a study using discussion groups in relation to grading policies, they sought to determine if a competitive atmosphere would motivate students to devote more energy to school work. On the contrary, they found that "competition, in particular a competitive grading policy, arouses tension in an individual . . .

The present research demonstrated that students in competitive discussion situations became more anxious, displayed a greater incidence of self-oriented needs, and found themselves losing self-assurance. Further, they were less able to perform effectively in recitation and they became dissatisfied with the discussion procedure. When the discussion was structured cooperatively, students felt less tense, displayed more task-oriented behavior, worked more effectively, and enjoyed the discussion." (p. 390)

One of the best ways of discouraging contributions in a discussion is to establish a grading policy based entirely on the frequency of participation and/or of the relative merit of it. Such a policy makes participation dangerous to students, for they may feel that should they not get exactly the right answer, or should they not talk enough, they will be penalized. On the other hand, if they do give right answers or talk a lot, they may be seen by their peers as hogging the conversation or trying to gain points through sheer quantity of participation. I believe that there should be minimal evaluation made of the quality of contributions or their length. In this way, the teacher says to students that he or she encourages them to participate when they feel that they have something to contribute, but they do not feel pressed to do so. In a way, the teacher is asking the students to feel free to expose their ignorance and to even fail occasionally. I do not suggest that discussions should not be evaluated, but I do believe that there should be a feeling that, while students are expected to be prepared, their participation on any one day will not be "counted heavily."

On matters of opinion and conjecture, it is vital that the teacher convey an open, accepting attitude about student contributions because, if students feel that what they say as opposed to how they say it or how they participate is going to determine their evaluation, they may merely parrot what they think he or she would like to hear them say, thereby precluding much intellectual advancement for anyone. In a way, teachers should set up grading standards, etc., so that the opinions that students share could not in any way have any bearing on their achievement.

In addition to not basing a class grade entirely upon the amount or quality of discussion, the instructor may find it useful to discuss the situation with students in an open and frank manner. If they are aware of some of the difficulties of assessing understanding through discussion groups, they may realize the quandry which a teacher faces. Together, the class may even be able to work out some innovative grading program. It is possible to take a different alternative by looking at the situation in a more positive manner. That is to say, the instructor may be able to set no expectations through a grading system or policies, etc., but obtain the desired amount of participation through his own efforts. By means discussed below and previous to this question, it seems that it should be possible to establish a climate of acceptance and openness to discussion. Further, in his or her individual actions, the teacher can do a great deal towards assuring that every student has the opportunity to contribute.

C. Student Preparation

Complementing the teacher's preparation must be preparation on the student's part before the discussion. The teacher may increase the likelihood of such preparation in several ways.

He or she should make sure that there are adequate copies of the materials to be read by the students. Sources for such materials include the bookstore, the library, reserve lists, etc. On occasion, a teacher may find it necessary to photocopy a limited number of copies for students, keeping in mind, of course, the new Copyright Law. Teachers should make student access to materials as easy as practical, thereby increasing the quality of their pre-class preparation.

D. Interaction Skills

To begin with, there is the need to be "responsive". This involves the ability to listen carefully to what students say and to respond in an appropriate cognitive and affective manner. Responsiveness in verbal interactions reflects the teacher's concern for establishing a reciprocal encounter or dialogue with students. The ultimate hope is that increased involvement in dialogue may increase students' opportunities to diagnose and respond to learning problems. As a teaching skill, responsiveness should also generate complementary student behavior. As students perceive a teacher's willingness to listen and respond appropriately to their contributions, students should be more receptive and responsive to the teacher's contributions. Responsiveness can be divided into specific skills of listening and response appropriateness, as described below.

1. Listen. Listening is primarily a technical skill, entailing concentration by the teacher on verbal statements of the students so that the main points of a communication are understood. The teacher should attend carefully to what he or she hears the student saying. He or she listens primarily for cognitive content but also attunes himself or herself to cues about the student's feelings and attitudes since these presumably also affect the instructional process. The teacher who listens carefully should thus be able to retain both explicit and implicit content and to summarize the essential meaning of a student's communication.

2. Respond appropriately. During the time between a student's comment and the teacher's response, the teacher should assess the comment and decide what reply might help the student to understand the concepts being discussed. To respond appropriately, the teacher must listen both to the content and intent of a student's comments and questions for cues as to what tack should be taken to help the student increase his or her understanding.

Taken together, listening and response appropriateness behavior can be defined as showing observable concentration on the content and intent of student verbal behavior, followed by a verbal reply which demonstrates some effort to understand and reply to the explicit and implicit meaning of the student's comment or question. The response of the teacher may be

an answer, a question, an elaboration, or a reinterpretation of his previous statement or question. A teacher may even stop group discussion to give students more background information by means of a short lecture. Finally, classroom responsiveness should be a goal for students as well. Responsiveness has been extensively treated by those involved with the Taxonomy of Educational Objectives project. In the report of the committee's work on the affective domain (Krathwohl, et al, 1964), two of the five categories are entitled "Receiving (Attending)" and "Responding."

Responsiveness in question and answer periods is particularly important and yet difficult to attain because students often find it difficult, even when given time, to express themselves adequately. The instructor can be of great assistance here by encouraging them to continue their attempt. Such phrases as "That is an interesting idea; can you tell us more?" or "I think you have the right idea, can you tell us how you arrived at this viewpoint?" may provide such encouragement. Helping students to clarify their reasoning may relieve them of awkward moments, enhance learning for others, and encourage all to participate in the learning process.

3. Use responsive techniques in questioning. A teacher who attempts to be a responsive discussion leader may wish to consider the following questioning techniques for enhancing his discussions' personal and academic value for students.

a. Pausing. When questions are asked, the instructor should allow the class to pause for a few minutes of reflection before asking for responses. Sieber's (1968) work suggests the value of this procedure, especially where there are several alternative responses, because "The number of alternatives under consideration and the degree of unsureness experienced are highly correlated; i.e., the more choice alternatives persons consider, the more uncertainty they tend to experience" (Driscoll and Lanzetta, 1965, as cited in Sieber, 1968). Thus, for productive contemplation to occur, the students must be given enough time. However, the logic of this assumption must escape many teachers, for the length of time between a teacher question and a student response is usually only several seconds. Not minutes, but seconds. Yet the role of the instructor here is not that of a lecturer; he should not dominate the conversation even though it is difficult not to, given his greater knowledge. Teachers who wish to display only their knowledge should schedule the class in an amphitheatre and devote their time to lecturing.

b. Monitoring. If an instructor is concerned that he or she dominates a class discussion, some simple monitoring techniques can assist him or her in modifying behavior. Using a video or audio tape replay of a class discussion can be very revealing by pointing out the time logged "on offense" by the instructor. If recording is not available, a student can be asked to remain apart from the discussion and to make a tally mark on a sheet of paper beside the name of the instructor each time he or she speaks. Marks are also made for each student contributor. The instructor may set a goal for himself or herself, e.g., one instructor tally to six for students. The results of the first few days are likely to reveal how

the discussion is dominated by one person and make the instructor increasingly sensitive to his or her role in the classroom. The number of tally marks for the instructor should steadily decrease as he or she becomes more responsive. Such feedback techniques can also show how instructors' responses to students have emotional as well as pedagogical impact. A review of research on the "ripple effect" in the classroom by Kounin, Gump and Ryans (1961) supports this idea by pointing to the negative effects of teacher responses. For example, the teacher's control of a deviant student ripples through and affects the entire group. A study of university students showed that students who witness teacher punitive measures toward a tardy student rated the instructor as less helpful, less likeable, less fair and more authoritarian than did students who viewed supportive actions in a similar situation.

Of course, even with the aid of a responsive discussion technique, a positive discussion climate is sometimes difficult and, in some cases, impossible to attain. A few precocious, highly verbal students can intimidate the rest of a class (and often, the instructor), making productive communication among students impossible. The task is difficult because it forces the teacher to carefully examine his or her own personality, shortcomings in character, and defensive mechanisms -- all of which are the product of a lifetime of experiences. For some college professors, such analysis and adjustment is impossible. Sensitivity, openness, and unbiased acceptance of others are underlying traits of teachers that often create the proper climate for discussion, yet they are not traits that can be acquired easily. For example, although there is evidence that the teacher who can laugh at himself or the topic creates a climate which is conducive to class interaction, humor cannot be forced, and the instructor who works at being funny is easily detected. Of course, humor by itself should not be taken as a sign of a good discussion leader, as it is only one form of evidence of a teacher's concern for and interest in his students and their cognitive and personal growth. An instructor's use of belittling sarcasm would certainly not be a sign of such concern.

4. Use a variety of activities and gestures. Discussion leaders should vary the stimulus from time to time by walking around the room, taking short breaks, or by using the board to summarize points, especially those that can be divided into pros and cons. Visuals are also a very good way of reinforcing understanding. Hand and facial gestures may be used to highlight points, to invite further discussion, to question an answer (quizzical look), etc. Gestures may include such behaviors as raising eyebrows, frowning, nodding, smiling, motioning with the finger, assuming the "thinker" pose, shaking the head, scratching the head, folding arms, tugging an ear and looking thoughtful, pointing from one student to another, looking at the ceiling, etc.

5. Use of silence. One of the most important aspects of discussion groups has to do with the absence of input -- the use of silence, or as some call it, "wait time." To be blunt, teachers should learn to keep their mouths shut. Unfortunately, in American education, silence is somehow threatening to most teachers. We are tempted to jump in after a short time following a question, to fill the silence. As mentioned

earlier, Bellack (1966) found in essence that teachers talk a great deal in discussion groups. There have been many studies to this effect, each indicating that the percentage of teacher talk is quite high, usually ranging from 60 to 90 percent.

As a nation, we seem to abhor silence in verbal interaction. Thus, even after asking a high level question, we tend to forget that a high level response may take more than a few seconds of contemplation and construction. It is a very difficult skill to learn. The use of gestures, both facial, hand, and even body, is a promising antidote to the problem. If we can focus our attention on eliciting further comments from students with inviting waves of the hand, or puzzled looks in our eyes, or a nodded head, or a thoughtful expression while the student is speaking, these will both invite the student to continue, and keep us from beginning to talk. Obviously then, that skill of silence in a classroom is integrally related with skill or use of gestures. In fact, it may be difficult for us to avoid gestures while still maintaining silence. The initial use of gestures to encourage greater participation by students in discussion may seem awkward and strained and even somewhat theatrical to us. We are not used to such hyperbole. However, most of us do have facial and other physical mannerisms in our classes and we may be able to initially adapt some of them or to utilize them to a greater extent as a way of learning to use the skill.

III. DISCUSSION STRATEGIES AND IDEA ITEMS: A CLOSER LOOK

With these overall strategies and as a kind of baseline expectation, focus can be turned to several of the IDEA items which embody these strategies. In addition, there are particular aspects of the skills which deserve mention here. The IDEA items, then, are as follows:

A. Item 1: Promoted teacher/student discussion, as opposed to mere responses to questions.

Particularly useful here is the notion of asking open-ended questions. One may ask questions that have more than one answer, e.g., "How many ways?" instead of "What is the best way?" Students can be asked how they "feel" about the topic, not what they "know" about it. The answer may be the same in either case, but the question may seem less threatening and, therefore, lead to greater student participation. If a person is to learn, he or she must become involved. Questions which encourage and invite involvement are a key part of responsive pedagogy.

Occasionally, the teacher may ask questions for which he or she does not have the answer. Even if he thinks he has the appropriate answer, the question can be stated as a hypothesis or a hunch. An instructor will gain respect, not lose it, from occasionally admitting that he does not know all of the answers. Furthermore, with the help of the class he may arrive at the correct answer or a consensus. In so doing, he might even learn something from his students.

B. Item 2: Found ways to help students answer their own questions.

The existence of this item reflects the sad fact that teachers oftentimes do not allow students to answer their own questions. Apparently, we have forgotten the lessons involved in Socrates' dialogue with the slave Meno. You may recall that Socrates, in his very patient way, helped the slave to answer most of his own questions in a way that led to greater breadth and depth of understanding. In a similar manner, it would be wonderful if each of our students' questions could be explored as they deserve to be by instructors sensitive to their need to do so. Such involvement might bring about not only greater understanding, but greater commitment as well. Several skills are relevant here:

1. Rephrasing. It is helpful at times to rephrase questions for students. This may help them see the problem in a new perspective, and thereby allow them to answer their own questions. Greater understanding and experience allow the teacher to see things as students cannot see them. An instructor should have the empathy to be able to recall what it was like to be faced with a difficult question and not be able to analyze it because of a simple yet profound conceptual block. This can be done through the use of such phrases as "Have you considered . . . ?" or "That is a difficult question. It helps me to think of it in the following way . . .".

2. Be understanding. It is important for the instructor to show his or her empathy for the student's difficulty. It lets the students know that it is a very natural thing to encounter problems. This can also be reinforced when the instructor is willing to show his lack of understanding.

3. Trouble shooting. At times it is useful to use the blackboard or some other visual means to chart the possible variables associated with an area of difficulty. This may lead to a student's discovering his own lack of understanding or misunderstanding, and also gives the class as a whole an opportunity to work through the problem. In many cases, more than one student will have the same difficulty. Thus, in responding to the question, the teacher might indicate that it is a "question that frequently arises and a good one". This helps to put at ease not only the person asking the question but the whole group as well. It also helps to draw the group into the deliberation process.

C. Item 3: Encouraged students to express themselves freely and openly.

There are several other ways of creating an atmosphere of encouragement for student discussion.

1. Physical setting. As discussed earlier, teachers can arrange classroom seating to make their seating and position unobtrusive. In a large class, a teacher can move his or her chair to the side of the room. Some class sessions might be held on neutral turf such as the student union or even student dorms. Students often enjoy being invited

to the professor's home for a class. It adds a nice personal touch to the class and, I believe, encourages personal interaction and therefore increased participation in discussion groups. Obviously, this can be done only with small classes!

2. Overviews. Another technique is to have students begin a discussion with overviews, questions, etc. To go a step further, there is no reason that discussions cannot be occasionally turned entirely over to students for their leadership. Usually, this kind of activity would take some prior work with students outside of class, individually or in small groups. However, such preparation would be an excellent investment and a marvelous opportunity for students to learn.

3. Eye contact. Another technique to encourage students is to avoid looking directly at a student speaker while he or she answers a question or contributes to a discussion. Such behavior inclines the speaker to look at the other students and not at the teacher. Again, the problem here is to remove the impression of "When you finish, I, the teacher, will talk". It involves trying to end merely two-way conversations and broaden them so that students will speak to other students. This technique can be used along with gestures in an attempt to shift a conversation to a democratic group discussion. Occasionally, intentionally or unintentionally, controversial issues will arise in discussion. I believe that teachers should not hesitate to offer their opinion but should be careful to label them as such. If a teacher does not offer his opinion in such cases, it may indicate aloofness and also convey the opinion that every solution or contribution is as good as another. From another standpoint, because teachers encourage students to take stands on issues, they must also be willing to do so. At any rate, it is unrealistic to expect a teacher to be impartial at all times. If he or she is, students may resent or distrust such actions, knowing that neutrality is impossible because teachers do have opinions and preferences. Students depend upon teachers to interpret issues according to their own judgment. A nurturant discussion group will encourage all to express their opinions as colleagues engaged in exploring, refining, etc., a common topic. The discussion leader should be both moderator and participant.

D. Item 13: Encouraged student comments even when they turned out to be incorrect or irrelevant.

Evaluation. To begin with, I would remind the reader of the importance of grading standards, as discussed at length earlier. Obviously, if students feel that their contributions are being continually graded, they are going to be reticent, to say the least, about speaking. They will certainly only speak when they are absolutely certain of their understanding. Unfortunately, discussion groups are a situation where people are invited to explore the frontiers of their knowledge and of the knowledge of their society. In such explorations, there are obviously going to be many blind alleys. However, it is important to explore them because they shed light on our ignorance and help us to discover the correct answers to our problems. Thus, the students should not be aware of whether each and every one of their comments is going to be considered "for the gradebook". This is a ground rule of paramount importance.

By establishing a positive scheme of evaluation, the teacher supports a belief that there are no right answers on many issues. Every contribution is important because it may offer a unique frame of reference that is valuable to the group's quest for the true and the valuable. The idea is for students to realize that their contributions are not only encouraged but sincerely appreciated. In no sense are they to be merely tolerated.

I touch upon this at length because I believe in our society there is a kind of stigma against the initial wrong answer. Too often we construct pictures of students' overall abilities on the basis of very inadequate samples. Oftentimes such samples are drawn from their comments and questions in a discussion section and a large lecture, and/or the discussions in seminars. This stigma is particularly unfortunate because, as in the case of any social stigma, it reduces a person's life chances. Too often teachers decide, on the basis of one or two "incorrect" answers, that a student is unable to deal with a subject at higher levels. In so doing, he or she not only makes an unethical decision, but also an unrealistic pedagogical decision. We too often forget that the way in which students reach higher plateaus of learning is often through failure. If we preclude them from making mistakes, they learn to deal only with the safe knowledge which, unfortunately, usually resides at the lower ends of the taxonomy of educational objectives. Thus, it is almost a tragedy that some discussion groups end up parroting only safe information such as knowledge of facts, etc. In such groups, the resources wasted are tremendous. The success of undergraduate teaching assistants in lecture and discussion groups may reflect on this aspect in that students are often less intimidated by peers, assuming that "If I am wrong, he or she will be understanding."

The above comments do not mean that incorrect or vague contributions should not be corrected. One way of responding to an incorrect answer is to maintain a period of silence, waiting for other students to enter the conversation with a correction. The instructor can also say such things as "The question could have been phrased better," or "That was an interesting answer. Have you also thought about . . .?" Of course, if no one contributes a more appropriate answer, the teacher should offer it in order that the covert knowledge might be known.

It might also be mentioned here that discussions are an excellent opportunity to not only diagnose learning difficulties, but to identify the instructor's teaching inadequacies. Learning and teaching are often inherently time consuming because they are complex, meaningful activities. More frequently than not, they do not lend themselves to "streamlining" or to a simplistic kind of efficiency -- particularly those instructional activities involving the upper levels of the cognitive taxonomy. Indeed, inefficiency and mistakes are often very healthy signs. For example, "getting off the track" with probing questions can be very serendipitous. Because diversions and explanations involve all the class, they are actually efficient.

IV. CONCLUSIONS

It may be accurate to say that, while the discussion format is invaluable to student learning, it is not an easy task to provide useful discussion contexts. There is a great deal of preparation required prior to discussions and a great deal of conscientious attentiveness required during the discussion. The underlying attitude required for both is that of responsiveness, which I have defined as the ability to attend carefully to what students say (or might say when planning a discussion) and to respond in an appropriate, cognitive and effective manner.

A responsive discussion leader (in a seminar or during a lecture) seeks to increase students' opportunities to understand concepts being discussed through active participation and also through a diagnostic process where the teacher uses discussions to increase the opportunities to identify and respond to learning problems.

Most of the skills involved in guiding discussions are already possessed by teachers. Improving upon them is primarily a matter of development and refinement. There are formal programs available for such skills as listening effectiveness (the Xerox Corporation has one) but I believe that the basic skill is an attitudinal one. Discussed several times, the key to positive discussions is the instructor's caring for what occurs. Care is behind each of the skills. Care is the conscientious and active concern for providing learning occasions which are both meaningful and satisfying to the students.

The focus of this Guide has been on the benefits to learners made possible by their teacher's skills.

It should also be noted that there is a very productive multiplier effect from a teacher's discussion skills, because students learn to use the skills as well. That is, if a teacher indicates a willingness and an ability to listen carefully, it is likely that students will begin to do likewise, thereby making the teacher's role easier. Support for this comes from the work on the modeling theory (Borg, et al, 1970).

It should be apparent, then, that guiding discussions is both demanding and rewarding. Discussions provide significant opportunities for both the teacher and the student, if properly and conscientiously planned and carried out. Like most meaningful human activities, they require commitment and involvement but, in turn, they bring very significant rewards.

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